

AMENDMENT

Kindly amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

CLAIMS:

Kindly amend the claims, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as equivalents, to read as follows:

1. (Original) An anti-fouling composition comprising
 - (i) a surface coating material;
 - (ii) an enzyme obtained or obtainable from a marine organism; and
 - (iii) (a) a substrate for the enzyme; and/or
(b) a precursor enzyme and a precursor substrate, wherein the precursor enzyme and the precursor substrate are selected such that a substrate for the enzyme is generatable by action of the precursor enzyme on the precursor substrate;wherein the enzyme and the substrate are selected such that an anti-foulant compound is generatable by action of the enzyme on the substrate.
2. (Original) A composition according to claim 1 wherein the enzyme is obtained or is obtainable from a marine alga.
3. (Original) A composition according to claim 1 wherein the enzyme is obtained or is obtainable from *Chondrus crispus*.
4. (Original) A composition according to claim 1 wherein the enzyme is hexose oxidase.
5. (Currently Amended) A composition according to claim 4 wherein the hexose oxidase enzyme comprises the amino acid sequence set out in ~~SEQ ID No. 2~~ SEQ ID No. 1 or a variant, homologue, derivative or fragment thereof having at least 75% homology with SEQ ID No. 1.

6. (Original) A composition according to claim 1 wherein the substrate is a sugar.
7. (Original) A composition according to claim 6 wherein the sugar is glucose.
8. (Original) A composition according to claim 1 wherein the composition comprises a precursor enzyme and a precursor substrate, wherein the precursor enzyme and the precursor substrate are selected such that the precursor substrate generates a substrate for the enzyme by action of the precursor enzyme on the precursor substrate.
9. (Original) A composition according to claim 8 wherein the precursor enzyme is amyloglucosidase.
10. (Original) A composition according to claim 8 wherein the precursor substrate is starch.
11. (Original) A composition according to claim 1 wherein the composition further comprises a binder to immobilise at least one of the constituents of the composition, preferably to immobilise the enzyme.
12. (Original) A coating consisting of a composition according to claim 1.
13. (Original) A coating according to claim 12 formulated for treatment of a surface selected from outdoor wood work, external surface of a central heating system, and a hull of a marine vessel.
14. (Original) A marine anti-foul consisting of a composition according to claim 1.
15. (Original) A marine anti-foul according to claim 14 wherein the anti-foulant is self-polishable.

16. (Original) A method for releasing an anti-fouling compound from a surface coating, which method comprises incorporating in a surface coating

- (i) an enzyme obtained or obtainable from a marine organism; and
- (ii) (a) a substrate for the enzyme; and/or
(b) a precursor enzyme and a precursor substrate, wherein a substrate for the enzyme is generated by action of the precursor enzyme on the precursor substrate;

wherein the anti-fouling compound is generated by action of the enzyme on the substrate.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Original) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from a marine organism; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase, and the substrate is sugar, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

22. (Currently Amended) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from a marine organism; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase having the amino acid sequence set forth in ~~SEQ ID NO:~~ 2 SEQ ID No. 1, and the substrate is sugar, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

23. (Original) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from *Chondrus crispus*; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase, and the substrate is sugar, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

24. (Currently Amended) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from *Chondrus crispus*; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase having the amino acid sequence set forth in ~~SEQ ID NO: 2~~ SEQ ID No. 1, and the substrate is sugar, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

25. (Original) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from a marine organism; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase, and the substrate is glucose, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

26. (Currently Amended) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from a marine organism; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase having the amino acid sequence set forth in ~~SEQ ID NO: 2~~ SEQ ID No. 1, and the substrate is glucose, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

27. (Original) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from *Chondrus crispus*; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase, and the substrate is glucose, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

28. (Currently Amended) An anti-fouling composition comprising:

- (i) a surface coating material;
- (ii) an enzyme obtained or obtainable from *Chondrus crispus*; and
- (iii) a substrate for the enzyme;

wherein the enzyme is hexose oxidase having the amino acid sequence set forth in ~~SEQ ID NO:~~ 2 SEQ ID No. 1, and the substrate is glucose, such that an anti-foulant compound is generated by action of the enzyme on the substrate.

29. (Currently Amended) A composition according to claim 4 wherein the hexose oxidase enzyme comprises the amino acid sequence set out in ~~SEQ ID NO:2~~ SEQ ID No. 1.